STIC Search Report
EIC 2100

STIC Database Tracking Number: 158636

TO:	From:
Laurel Lashley **Location: RND 2A34** **Art Unit : 2132** **Wednesday, July 20, 2005** **Case Serial Number: 10/049844**	**David Holloway** **Location: EIC 2100** **RND 4B19** **Phone: 2-3528** **david.holloway@uspto.gov**

Search Notes

Dear Examiner Lashley,

Attached please find your search results for above-referenced case.
Please contact me if you have any questions or would like a re-focused search.

David

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Set      Items    Description
S1      101685    PACKET? OR DATAGRAM? OR IP OR TCP
S2     1748535    NUMBER? OR NUMERAL? OR DATA()ELEMENT? OR IDENTIFIER? OR ID
             OR LABEL? OR CHARACTER()STRING?
S3     1270819    LIST? OR SEQUENCE? OR TABLE? OR MATRIX? OR ARRAY?
S4     3230824    CONVEY? OR DISTRIBUT? OR SEND? OR DELIVER? OR RECEIV? OR M-
             ULTICAST?
S5     4182708    USED OR UNUSED OR AVAILABL? OR "NOT"()USED OR FRESH?
S6      834031    AUTHENTICAT? OR AUTHORI? OR CONFIRM? OR VERIF? OR RESPONS?
             OR RESPOND? OR ACKNOWLEDGE? OR ACK
S7         845    S1 AND S2 AND S3 AND S4 AND S5
S8       42187    (POSITION? OR SLOT? OR ROW OR ROWS OR COLUMN OR COLUMNS OR
             ENTRY OR ENTRIES OR SPACE?)(2N)S3
S9          47    S7 AND S8
S10      22299    S2(2N)S5
S11         66    S7 AND S10
S12        111    S9 OR S11
S13         79    S12 AND IC=H04L
S14         57    S13 NOT AD=19990916:20020916
S15         44    S14 NOT AD=20020916:20050916
S16         44    IDPAT (sorted in duplicate/non-duplicate order)
S17         44    IDPAT (primary/non-duplicate records only)
File 347:JAPIO Nov 1976-2005/Feb(Updated 050606)
         (c) 2005 JPO & JAPIO
File 350:Derwent WPIX 1963-2005/UD,UM &UP=200545
         (c) 2005  Thomson Derwent
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17/5/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014095264 **Image available**
WPI Acc No: 2001-579478/200165
XRPX Acc No: N01-431302

A method of managing virtual circuits for a frame relay network includes a destination data link connection identifier used **to look up a multiplexing value, and a** packet **fragmented and queued for transmission in a virtual circuit**

Patent Assignee: CISCO TECHNOLOGY INC (CISC-N)
Inventor: SIMON R; VON HAMMERSTEIN C G
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 6292495	B1	20010918	US 9858874	A	19980410	200165	B

Priority Applications (No Type Date): US 9858874 A 19980410
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6292495	B1		24	H04L-012/56	

Abstract (Basic): US 6292495 B1

NOVELTY - A local frame relay access device (FRAD) **receives** frame relay **packets** (41). A user selects to bundle bursty data **packets** under a shared data link connection **identifier** (DCLI). A destination DCLI in a **received packet** is **used** to look up a multiplexing value in a **table** (43). The **packet** is fragmented with each fragment including the shared DCLI and the multiplexing value (45), and the fragments are queued for transmission in a sub-multiplexed permanent virtual circuit (PVC).

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a frame relay access device including **receive** logic, status message generation logic and a transmitter.

USE - The method of managing virtual circuits is **used** for a frame relay network.

ADVANTAGE - Local management Interface (LMI) status interference with voice frames is avoided. The network perceives the shared DCLI as a single PVC reducing the cost of access and the size of the LMI message status. The **number** of PVCs is reduced.

DESCRIPTION OF DRAWING(S) - The figure shows a flowchart illustrating a method of managing virtual circuits.

pp; 24 DwgNo 5A/11

Title Terms: METHOD; MANAGE; VIRTUAL; CIRCUIT; FRAME; RELAY; NETWORK; DESTINATION; DATA; LINK; CONNECT; IDENTIFY; UP; MULTIPLEX; VALUE; **PACKET**; FRAGMENT; QUEUE; TRANSMISSION; VIRTUAL; CIRCUIT
Derwent Class: W01
International Patent Class (Main): **H04L-012/56**
File Segment: EPI

17/5/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012874430 **Image available**
WPI Acc No: 2000-046263/200004
XRPX Acc No: N00-035838

Encryption communication system in computer network - delivers encryption communication control table to each encryption apparatus on communication path, for processing communication data

Patent Assignee: MITSUBISHI ELECTRIC CORP (MITQ)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
JP 11308264	A	19991105	JP 98107808	A	19980417	200004	B

Priority Applications (No Type Date): JP 98107808 A 19980417
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 11308264	A		13	H04L-012/46	

Abstract (Basic): JP 11308264 A

NOVELTY - An encryption communication control **table** containing control code and encryption key **ID** for searching all communication paths between communication terminals belonging to designated communication group, is produced and sent to each encryption apparatus on communication path. Based on **received table** , data processor of encryption apparatus processes the communication data. DETAILED DESCRIPTION - An encryption virtual private network (VPN) management apparatus has a display unit which displays network block diagram including routes (30,32), communication terminals (31,36-38) and encryption apparatus (33,34). A selector chooses the communication area, communication terminal, communication terminal group or encryption apparatus, to designate a communication group based on the displayed network block diagram. A setter sets up the key **ID used** in encryption communication between the communication terminals belonging to the designated communication group.

USE - In computer network.

ADVANTAGE - Since the address of communication terminal and encryption communication information are setup beforehand, communication failure is minimized greatly. Since the encryption apparatus holds the encryption communication **table** , transmission of key search **packet** is eliminated when the communication data from the communication terminal are **received** . Materializes encryption communication without causing degradation to safety of enterprise network. DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of network, to which encryption communication system is adopted. (30,32) Routes; (31,36-38) Communication terminals; (33,37) Encryption apparatus; (VPN) Encryption virtual private.

Dwg.1/17

Title Terms: ENCRYPTION; COMMUNICATE; SYSTEM; COMPUTER; NETWORK; **DELIVER** ; ENCRYPTION; COMMUNICATE; CONTROL; **TABLE** ; ENCRYPTION; APPARATUS; COMMUNICATE; PATH; PROCESS; COMMUNICATE; DATA
Derwent Class: T01; W01
International Patent Class (Main): **H04L-012/46**
International Patent Class (Additional): G06F-013/00; **H04L-009/08** ; **H04L-009/14** ; **H04L-009/36** ; **H04L-012/28** ; **H04L-012/56** ; **H04L-012/66**
File Segment: EPI

relevant - look up

17/5/17 (Item 17 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009172889 **Image available**
WPI Acc No: 1992-300323/199236
XRPX Acc No: N92-229990

Sequence number **tracking method for** packet **data communication system - rejects** packets **with** sequence number **outside bounded range defined at destination and uses bit map to filter duplicate** sequence numbers

Patent Assignee: DIGITAL EQUIP CORP (DIGI)
Inventor: HARVEY G A; SOUZA R J; THOMAS R E; VARGHESE G
Number of Countries: 006 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9214327	A1	19920820	WO 92US1023	A	19920207	199236	B
US 5151899	A	19920929	US 91654067	A	19910211	199242	
EP 525174	A1	19930203	EP 92906871	A	19920207	199305	
			WO 92US1023	A	19920207		
JP 5502362	W	19930422	JP 92506648	A	19920207	199321	
			WO 92US1023	A	19920207		
EP 525174	B1	19970115	EP 92906871	A	19920207	199708	
			WO 92US1023	A	19920207		
DE 69216704	E	19970227	DE 616704	A	19920207	199714	
			EP 92906871	A	19920207		
			WO 92US1023	A	19920207		

Priority Applications (No Type Date): US 91654067 A 19910211
Cited Patents: EP 162478; EP 224895; US 4653048
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9214327	A1	E	41	H04L-029/06	
US 5151899	A		18	H04J-003/24	
EP 525174	A1	E	41	H04L-029/06	Based on patent WO 9214327
JP 5502362	W			H04L-012/56	Based on patent WO 9214327
EP 525174	B1	E	23	H04L-029/06	Based on patent WO 9214327
Designated States (Regional): DE FR GB IT					
DE 69216704	E			H04L-029/06	Based on patent EP 525174
					Based on patent WO 9214327

Abstract (Basic): WO 9214327 A

The method tracks **sequence numbers** for message **packets** in a **packet** data transmission system. **Numbers** are assigned in order to a series of **packets** transmitted from source to destination. At the destination a bounded **number** range, comprising a fraction of all the **numbers** , is defined. **Packets** having **numbers** outside the range are discarded.

The destination maintains an indexed bit map representing the **sequence number** of each **received packet** . The **number** position in the map is checked for each **received packet** and any **packet** whose **number** is already set discarded.

ADVANTAGE - Minimum computational burden. Speed appropriate for high performance.

Dwg.4/12

Title Terms: **SEQUENCE** ; **NUMBER** ; TRACK; METHOD; **PACKET** ; DATA; COMMUNICATE; SYSTEM; REJECT; **PACKET** ; **SEQUENCE** ; **NUMBER** ; BOUND; RANGE ; DEFINE; DESTINATION; BIT; MAP; FILTER; DUPLICATE; **SEQUENCE** ; **NUMBER**
Derwent Class: T01; W01
International Patent Class (Main): H04J-003/24; **H04L-012/56** ; **H04L-029/06**

File Segment: EPI

17/5/26 (Item 26 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007079821
WPI Acc No: 1987-079818/198711
XRPX Acc No: N87-060357
Interconnection of cyclic broadcast networks - uses topological store and forward protocol dropping packets **at drop** listed **trees**
Patent Assignee: BELL COMMUNICATIONS RES (BELL-N); BELL COMMUNIC RES (BELL-N)
Inventor: SINCOSKIE D; SINCOSKIE W D
Number of Countries: 013 Number of Patents: 007
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8701543	A	19870312	WO 86US1206	A	19860530	198711	B
EP 233898	A	19870902	EP 86904496	A	19860530	198735	
JP 62502303	W	19870903	JP 86503591	A	19860530	198741	
US 4706080	A	19871110	US 85769555	A	19850826	198747	
CA 1254984	A	19890530				198926	
EP 233898	B1	19920729	EP 86904496	A	19860530	199231	
			WO 86US1206	A	19860530		
DE 3686254	G	19920903	DE 3686254	A	19860530	199237	
			EP 86904496	A	19860530		
			WO 86US1206	A	19860530		

Priority Applications (No Type Date): US 85769555 A 19850826
Cited Patents: 2.Jnl.Ref; GB 2149625
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8701543	A	E	29		
Designated States (National): JP					
Designated States (Regional): AT BE CH DE FR GB IT LU NL SE					
EP 233898	A	E			
Designated States (Regional): DE FR GB					
US 4706080	A		14		
EP 233898	B1	E	16	H04L-012/46	Based on patent WO 8701543
Designated States (Regional): DE FR GB					
DE 3686254	G			H04L-012/46	Based on patent EP 233898
					Based on patent WO 8701543

Abstract (Basic): WO 8701543 A

The method involves transmitting data **packets** over a system including a **number** of networks interconnected by gateways that implement drop **list** processing, a set of spanning trees are selected for the system. An **identifier** is then **conveyed** with a **packet** indicating one of the trees. The **identifier** is **used** at each gateway to determine the routing. An acknowledgement **packet** may be returned over the selected tree.

Each gateway may be configured with drop **lists** for the trees, and at each gateway, the source address, destination address and the spanning tree **identifier** are determined, the source address being inserted into the drop **list** . The **packet** is dropped if the tree is not processed at the gateway or the destination address is in the drop **list** .

USE - Interconnecting. Local area networks.

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Title Terms: INTERCONNECT; CYCLIC; BROADCAST; NETWORK; TOPOLOGICAL; STORAGE ; FORWARD; PROTOCOL; DROP; **PACKET** ; DROP; **LIST** ; TREE
Derwent Class: W01
International Patent Class (Main): **H04L-012/46**
International Patent Class (Additional): G08B-005/00; H04J-003/24; **H04L-011/16** ; **H04L-012/56** ; H04Q-003/42; H04Q-005/00
File Segment: EPI

17/5/28 (Item 28 from file: 350)
DIALOG(R)File 350:Derwent WPIX

004667508
WPI Acc No: 1986-170850/198627
XRPX Acc No: N86-127558
Transmitting sequence numbers **of information** packets - **acknowledging correctly** received packets **by piggy-backing their** sequence numbers **on** packets **being transmitted**
Patent Assignee: NORTHERN TELECOM LTD (NELE)
Inventor: BAKER D M; DRYNAN D S
Number of Countries: 015 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 186343	A	19860702	EP 85308798	A	19851203	198627 B
PT 81764	A	19860611				198629
JP 61161847	A	19860722	JP 85299791	A	19851228	198635
US 4617657	A	19861014	US 84688110	A	19841231	198644
CA 1220830	A	19870421				198720
EP 186343	B	19920219				199208
DE 3585407	G	19920326				199214
JP 6205045	A	19940722	JP 85299791	A	19851228	199434
			JP 93142487	A	19851228	

Priority Applications (No Type Date): CA 471145 A 19841228; US 84688110 A 19841231
Cited Patents: 4.Jnl.Ref; A3...8804; EP 46831; JP 59178831; No-SR.Pub
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 186343	A	E	21		
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
EP 186343	B				
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
JP 6205045	A		19	H04L-012/56	Div ex application JP 85299791

Abstract (Basic): EP 186343 A

Each **packet** has control and information fields. The control field includes a **sequence number** of the **packet** . The **sequence number** of a **packet received** in an opposite direction of transmission is selectively transmitted in the **packet** to acknowledge correct receipt of that **packet** . In the control field of each **packet** is transmitted a bit whose state indicates the presence or absence of the **sequence number** of a **received packet** being acknowledged.

Acknowledgements can also be transmitted separately in control **packets** having no information field. Each acknowledgement consists of not only the **sequence number** of a correctly **received packet** but also the acknowledgement status of a **number** of preceding **packets** so that these can be negatively acknowledged if necessary. The **sequence number** size is determined on set-up of the link depending on the transmission speed and round-trip delay.

ADVANTAGE - Systems having long round-trip delays e.g. satellite links, and/or high transmission rates. Both long and short **packets** can be handled efficiently and imbalanced information rates in the two directions can be accommodated. A single procedure can be **used** consistently on many varied **packet** data transmission systems.

Title Terms: TRANSMIT; **SEQUENCE** ; **NUMBER** ; INFORMATION; **PACKET** ; ACKNOWLEDGE; CORRECT; **RECEIVE** ; **PACKET** ; BACKING; **SEQUENCE** ; **NUMBER** ; **PACKET** ; TRANSMIT
Index Terms/Additional Words: **SATELLITE** ; **RADIO** ; **RELAY**
Derwent Class: W01; W02
International Patent Class (Main): **H04L-012/56**
International Patent Class (Additional): **H04L-001/16** ; **H04L-005/14** ; **H04L-013/00** ; **H04L-029/08** ; H04Q-011/04
File Segment: EPI